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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,245	09/15/1999	FRANK LEYMANN	GE998-078	7155

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EXAMINER

TANG, KENNETH

ART UNIT PAPER NUMBER

2195

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/396,245

Applicant(s)

LEYMANN ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in the response to the Amendment filed on 4/18/05. Applicant's arguments have been fully considered but are now moot in view of the new grounds of rejections.
2. Claims 1-11 are presented for examination.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 2, 4, 5, 8, are directed to method steps which can be practiced mentally in conjunction with pen and paper, therefore they are directed to non-statutory subject matter. Specifically, as claimed, it is uncertain what performs each of the claimed method steps because it is not tangible.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:
  - a. The term "standard behavior" in claims 1 and 5-6 is a relative term which renders the claim indefinite. The term "standard behavior" is not defined by the claim, the

specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The broadest reasonable interpretation of the “standard behavior” is what is known in the prior art. There are many standard behaviors and it is not made explicitly clear in the claim language what this is.

b. In claims 1, 5-6, the term “deviation from the standard behavior” is indefinite because it is not defined what the standard behavior is. The broadest reasonable interpretation of “deviation from the standard behavior” is something different than prior art, which is not a limitation in the claims.

c. In claims 1, 4-8, and 11, the term “posted” is indefinite because it is not made explicitly clear in the claim language what posted is related to. It is unclear whether there is a connection made where posting is made to data on the nodes of the graph. No connection or relationship is made at all.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable by Shigemi et al. (hereinafter Shigemi) (US 6,314,434 B1) in view of Davis et al. (hereinafter Davis) (US 5,870,545), and further in view of Panagos et al. (hereinafter Panagos) (US 6,601,035 B1).**

6. As to claim 1, Shigemi teaches a computerized method for processing of start-conditions processed by a computer system acting as a Workflow-Management-System (WFMS) or a computer system with comparable functionality (*col. 19, lines 5-18*), said WFMS comprising at least one process-model said process-model modeling a process comprising one or more process-activities being nodes of an arbitrary graph and directed control-connectors of said graph defining a potential control flow within said process-model (*col. 8, lines 37-48, Fig. 1, col. 5, lines 11-24*), said method:

in a standard behavior of processing start-conditions, evaluating, if a target-activity representing a work item of said process may be started, by evaluating the truth-value of a start-condition once the truth-values of all incoming control-connectors of said target-activity have been posted (*col. 19, lines 17-19*); and

said method being further characterized by comprising a timed-evaluation-step, said timed-evaluation-step evaluating of (*col. 9, line 67, Fig. 4, item 11*):

evaluating, if at least a first one of said incoming control-connectors is associated with a time-interval defining a maximum period of time, as measured from a reference point, after which the target-activity is to be started, and evaluating if said time-interval has expired (*col. 9, line 67, Fig. 1, Fig. 4, item 11*).

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7. Shigemi teaches that in the affirmative case, said timed-evaluation-step, as a deviation from the standard behavior of processing start-conditions is continuing the processing to start said target-activity (*col. 19, lines 5-31*). The broadest reasonable interpretation of “deviation from the standard behavior of processing start-conditions” is that it is different over prior art. There are many “standard behaviors” and it is not made explicitly clear in the claim language or specification what this is. Shigemi fails to explicitly teach doing this even if not all truth-values of said incoming control-connectors have been posted yet.

8. However, Davis teaches concurrent processing of activities (*col. 14, lines 2-8*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of continuing the processing to start said target-activity even if not all truth-values of said incoming control-connectors have been posted yet because this allows for atomic execution and full or partial synchronization (*col. 14, lines 1-9*).

9. Shigemi also fails to explicitly teach using Boolean values as the truth-values. However, Davis teaches using Boolean values to control processing of the activities (*col. 12, lines 52-60, col. 12, lines 44-51*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of having Boolean values as the truth-values because it provides an indicator of when action needs to take place based on conditions, and therefore, providing control (*col. 12, lines 48-51*).

10. Shigemi and Davis fails to explicitly teach evaluating, if at least a first one of said incoming control-connectors is associated with a time-interval defining a maximum period of time, as measured from a reference point, after which the target-activity is to be started, and evaluating if said time-interval has expired. However, Panagos teaches a time interval start time

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and completion or deadline time of a workflow activity to be executed when ready for execution.

It is inherent that a time-interval consists of a minimum period of time (reference point at the beginning of period) and a maximum period of time (reference point at the end of period). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of time intervals and evaluating when the interval expires because the control connectors would be based on dynamic and time dependent relations rather than static (*col. 4, lines 4-18, etc.*).

11. As to claim 2, Davis teaches a method processing of start-conditions:

- wherein said first incoming control-connector is associated with a commencing-activity, the commencing-activity corresponding to one of the process-activities in the process model (*see Figure 7, col. 12, lines 44-51, col. 12, lines 24-26, col. 13 lines 10-20. col. 12, lines 18-26*);
- wherein said timed-evaluation-step uses as starting point for said time-interval the point in time when said commencing-activity is completed. (*col. 12, lines 24-26, col. 13 lines 10-20, and col. 17, lines 53-56, col. 12, lines 44-51*).

12. As to claim 3, Davis teaches a method for processing of start-conditions (*col. 12, lines 18-26*):

- wherein said first incoming control-connector is associated with a path from said commencing-activity to said target-activity (*see Figure 7, col. 15, lines, 53-67, col. 12, lines 44-51, col. 12, lines 24-26, col. 13 lines 10-20*).

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- said timed-evaluation-step is continuing the processing to start said target-activity, if said associated path has been traversed (*col. 7, lines 27-35, col. 12, lines 24-26, and col. 13 lines 10-20*);

4. As to claim 4, it is rejected for the same reasons as stated in the rejections of claims 1-3.

5. As to claim 5, it is rejected for the same reasons as stated in the rejections of claims 1-3.

In addition, Davis includes a data processing program for execution in a data processing system comprising software (*see Abstract*).

13. As to claim 6, it is rejected for the same reasons as stated in the rejections of claims 1-3.

In addition, Davis includes a data processing program for execution in a data processing system comprising software (*see Abstract*).

14. As to claims 7-8, they are rejected for the same reasons as stated in the rejections of claim

1.

15. As to claims 9-10, they are rejected for the same reasons as stated in the rejections of claims 2-3.

16. As to claim 11, it is rejected for the same reasons as stated in the rejections of claim 1.

### ***Response to Arguments***

17. During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.” *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

18. Applicant’s arguments have been fully considered but they are now moot in view of the new grounds or rejections.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/31/05



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